

Experimental 3-phase motor control system

Finale Budget (19 Apr 2009):

Resistors

1k 350V	axial	1.0KW-2-ND	5	0.135	0.675
15k	_0603	RHM15.0KHCT-ND	5	0.069	0.345
8	axial	8.2W-2-ND	2	0.18	0.36
1.3k	_0603	RHM1.3KGCT-ND	10	0.069	0.69
4.7k	_0603	RHM4.7KGCT-ND	50	0.069	3.45
360	_0603	RHM360GCT-ND	30	0.069	2.07
2k	_0603	RHM2.0KGCT-ND	10	0.069	0.69
47k	_0603	RHM47KGCT-ND	20	0.069	1.38
0.47	_0603	0.47W-2-ND	2	0.23	0.46
180	_0603	MCR03EZPJ181	10	0.069	0.69
1.5k 1%	_0603	RMCF1/161.5K1%RCT-ND	10	0.006	0.06
10k 1%	_0603	311-10.0KHRCT-ND	10	0.077	0.77
2.2k	_0603	MCR03EZPJ222	20	0.069	1.38
6.8k	_0603	MCR03EZPJ682	10	0.069	0.69
390	_0603	MCR03EZPJ391	10	0.069	0.69
1.2k	_0603	MCR03EZPJ122	10	0.069	0.69
330	_0603	MCR03EZPJ331	10	0.069	0.69
820	_0603	MCR03EZPJ821	10	0.069	0.69
100	_0603	MCR03EZPJ101	10	0.069	0.69
20k	_0603	MCR03EZPJ203	10	0.069	0.69
					42.432

Capacitors

1n	_0603	399-1082-1-ND	50	0.022	1.1
10n	_0603	399-1091-1-ND	50	0.022	1.1
33p	_0603	490-1339-1-ND	10	0.05	0.5
20p	_0603	490-1334-1-ND	10	0.05	0.5
470u	5mm s	493-1304-ND	2	0.29	0.58
1n 100V	2.54	399-4146-ND	10	0.125	1.25
10n 100V	2.54	399-4149-ND	10	0.125	1.25
0.1u 16V	_0603	399-1096-1-ND	20	0.02	0.4
220p	_0603	311-1077-1-ND	20	0.055	1.1
1n5	_0603	399-1084-1-ND	10	0.041	0.41
100u	5mm s	493-1124-ND	4	0.28	1.12
100n	_0603	PCC1794CT-ND	10	0.045	0.45
330n	_0603	490-1579-1-ND	10	0.092	0.92
220u 16V	5mm s	493-1082-ND	4	0.28	1.12
27p	_0603	GRM1885C2A270JA01D	10	0.05	0.5
1500u	5mm s	P12380-ND	2	0.95	1.9
					14.2

Coils:

3.3u 600mA	1210	PCD1137CT-ND	7	0.27	1.89
7.5u 600mA	1210	PCD2041CT-ND	4	0.75	3
170uH 600mA	1210	308-1510-1-ND	1	1.42	1.42
					6.31

Diodes:

BAT54CCT-ND	Shotky	5	0.12	0.6
BAS16TW-FDICT-ND	Stand Diode x3	3	0.5	1.5
BAT54SCT-ND	Shotki x2	10	0.093	0.93
BAT54TW-TPCT-ND	Shotki x3	10	0.25	2.5
160-1409-1-ND	LED gr/red	3	0.27	0.81
BZX84C5V1FSCT-ND	Zen	2	0.12	0.24
160-1169-1-ND	Gr	5	0.08	0.4
160-1167-1-ND	Re	5	0.09	0.45
160-1185-1-ND	Ye	2	0.11	0.22
				7.65

Development tools and extra:

ICD 2 – PIC debugger/progr.	---	2	40	80
Extra passive components	---	1	10	10
2-pole magnet for encoder	---	2	0	0
SOIC-to-DIP converter	---	1	3	3
PCB manuf.	---	1	50	50
				143.00

		Aslakson, J		19.04.09
		Advisor	Sign.	Date

Other:

EG4346-ND	Pushbutton	10	0.38	3.8
160-1539-5-ND	LED display	3	1.2	3.6
EG1907-ND	Switch	2	1.01	2.02
74AC541SCXCT-ND	74AC541SCX	2	0.52	1.04
X019-ND	Quartz 7.32	2	0.4	0.8
F2173CT-ND	Varistor 14V	2	0.47	0.94
CP-102A-ND	Connector	2	0.38	0.76
CP3-1000-ND	Connector	2	0.93	1.86
IRAMS10UP60B-ND	IRAMS IGBT mod	1	23.4	23.4
296-11610-1-ND	Invert buffer	2	0.39	0.78
EG2578-ND	Switch On Off	1	2.01	2.01
A19432-ND	Connector Male 5pin	3	0.31	0.93
A30981-ND	Connector Female 5pin	3	0.3	0.9
S7053-ND	Header - 20pin - female	2	1.01	2.02
S1012E-36-ND	Header - 20pin - male	2	1.25	2.5
S9001-ND	Jumpers	20	0.087	1.74
SAM1099-40-ND	Header - 20pin - male 2mm	1	3.97	3.97
NHD-12864AZ-NSW-BBW-TR-ND	GLCD	1	27.75	27.75
1N4148FS-ND	Di	5	0.04	0.2
1N5819FSCT-ND	Di	2	0.37	0.74
BC547BTACT-ND	Tran	5	0.11	0.55
BC557-ND	Tran	5	0.28	1.4
497-7413-5-ND	Conv	2	1.43	2.86
568-1392-1-ND	Logic	3	0.38	1.14
MM74HC126M-ND	Logic	3	0.39	1.17
568-1462-1-ND	Logic	3	0.4	1.2
296-3628-1-ND	Logic	3	0.9	2.7
WM17113-ND	USB conn	2	2	4
BC327GOS-ND	Tran	5	0.28	1.4
HS359-ND	Heat sink To220	1	0.72	0.72
				98.9

Total: \$295 + T/S/H